Amendments to the Specification

Please replace the paragraph beginning on page 1, line 1 with the following amended paragraph:

BACKGROUND OF INVENTION

1. FIELD OF THE INVENTION

A1

The invention relates to a display device which includes a driver circuit and a liquid crystal display with a plurality of rows R and columns C. The invention also relates to a driver circuit for driving a display.

Please replace the paragraph beginning on page 1, line 4 with the following amended paragraph:

2. DESCRIPTION OF RELATED ART

A2

The display technique will play an increasingly more important role in the information and communication technique in the years to come. Being an interface between humans and the digital world, the display device is of crucial importance for the acceptance of contemporary information systems. Notably portable apparatus such as, for example, notebooks, telephones, digital cameras and personal digital assistants cannot be realized without utilizing displays. The passive matrix LCD technology is a very commonly used LCD technology; it is used, for example, in laptops and in mobile telephones. The passive matrix display technology enables the implementation of large displays; such large displays are usually based on the (S)TN (Super Twisted Nematic) effect. A passive matrix LCD consists of a number of layers. The display is subdivided in the form of a matrix of rows and columns. The row electrodes and column electrodes that are arranged on respective substrates form a grid. The layer with the liquid crystal is provided between said substrates. The intersections of these electrodes form image points or pixels. These electrodes are supplied with voltages that orient the liquid crystal molecules of the driven pixels in an appropriate direction so that the driven pixel becomes visible.

Please replace the paragraph beginning on page 2, line 26 with the following amended paragraph:

BRIEF SUMMARY OF THE INVENTION

This object is achieved in accordance with the invention in that a display device which includes a driver circuit (1) and a display (2) with a plurality of rows R and columns C, where a number p indicates the number of simultaneously driven rows, where the rows R and the columns C can be driven by means of voltage values of the equally high voltages F and G_{MAX}, and where the display has a multiplexibility of $m \geq R$ and the number p of simultaneously driven rows can be selected in dependence on the display size to be driven, whereas the driver circuit (1) includes voltage driver stages (buffers) that can be switched off in dependence on the optimal number p to be simultaneously driven, which is derived from the display size.

A3

Please replace the paragraph beginning on page 4, line 9 with the following amended paragraph:

BRIEF DESCRIPTION OF THE DRAWINGS

A4

The invention will be described in detail hereinafter with reference to the embodiments that are shown in the drawings. Therein:

Please replace the paragraph beginning on page 4, line 21 with the following amended paragraph:

DETAILED DESCRIPTION

A5

Fig. 1 shows the driver circuit 1, the display 2 and the microcontroller 3. The driver circuit 1 includes a memory 9 in which the image data is stored. The driver circuit 1 also includes a voltage generating unit 4. The optimum value for the number p is calculated in an arithmetic unit 5. The switching device 10 of the voltage generating unit 4 is controlled by means of said optimum value of p. The partial voltages that are generated in the voltage generating unit 4 and the two supply voltages are applied to a switch 7. A function generator 6 generates sets of orthogonal functions that are applied to the rows in dependence on the value p. These sets of orthogonal functions are also applied to said switch 7. The partial voltages presented and the orthogonal functions are combined therein so as to be applied each time as a set of orthogonal functions to the p rows to be simultaneously driven. The p-1 partial voltage values and the two

supply voltages V_{LCD} and V_{SS} are also applied to the switch 8. The set of orthogonal functions that is generated by the function generator 6 is also applied to the switch 8. In the switch 8 the column voltage G is calculated in conformity with the MRA theory, that is, by means of the set of orthogonal functions, the value p and image data that is read from the memory 9 and corresponds to the p driven rows of a column. This column voltage is selected from the number of partial voltages.